UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

SUBJECT:	CLEAN AIR ACT INSPECTION REPORT Silgan Containers, Savage, Minnesota
FROM:	Emma Leeds, Environmental Engineer AECAB (IL/IN)
THRU:	Nathan Frank, Section Supervisor AECAB (IL/IN)
TO:	File

BASIC INFORMATION

Facility Name: Silgan Containers

Facility Location: 12130 Lynn Ave, Savage, MN 55378

Date of Inspection: 7/13/22

EPA Inspector(s):
1. Emma Leeds, Environmental Engineer
2. Dakota Prentice, Environmental Engineer

Other Attendees:
1. Brad Pepin, Plant Supervisor – Silgan Containers
2. Bruce Vind, Warehouse Supervisor – Silgan Containers
3. Jonathan Kania, Environmental Engineer – Silgan Containers (on phone)

Contact Email Address: BPepin@silgancontainers.com

Purpose of Inspection: To investigate compliance with the Clean Air Act and Part 70 operating permit issued by Minnesota Pollution Control Agency (MPCA), and investigate possible applicability of federal air regulations for metal can coating operations

Facility Type: Metal can manufacturing and coating

Regulations Central to Inspection: Part 70 permit, specifically facility-wide volatile organic compound (VOC) limit of 240 tons per year and hazardous air pollutant (HAP) limit of nine tons per year

Arrival Time: 8:20 AM
Departure Time: 9:45 AM

Inspection Type:
☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

☒ Presented Credentials
☒ Stated authority and purpose of inspection
☐ Provided Small Business Resource Information Sheet
☒ Small Business Resource Information Sheet not provided. Reason: Not a small business
☒ Provided CBI warning to facility

The following information was obtained verbally from Silgan Containers personnel unless otherwise noted.

Process Description:
Raw material arrives at the facility in the form of metal coils. Approximately 50% of coils arrive pre-coated with epoxy or vinyl. Coils are cut into sheets, typically 3 feet by 5 feet, and then individually fed through one of two sheet coater and oven lines. Some sheets pass through the lines up to three times, and some sheets receive coating on both sides. Coated and dried sheets are either stacked onto palettes and sent to another facility, or stamped into can bodies or can ends. A rubber-based end seal compound is applied to each can end to create a gasket with the can body, which is then wrapped around the can end with a sealer. Open cans are then shipped to other facilities to be filled and closed.

One catalytic oxidizer (CatOx) is used to control VOC and HAP emissions from the two coating and oven lines.

Staff Interview: Silgan Containers operates with 110 employees for 24 hours, 7 days a week, except for the coating department, which operates 24 hours, 5 days a week. Silgan Containers manufactures cans for the food and pet food industry.

Approximately 20 different coatings are used at the facility, with the three most common being epoxy, vinyl, and polyesters. Coating emissions are calculated using a mass balance based on VOC and HAP weights from the manufacturer's specifications. The facility emits approximately 108 tons of VOC per year, which mostly comes from the uncontrolled end seal application process. Xylene from the sheet coating process is the main HAP emitted.

The destruction efficiency of the CatOx was last tested two years ago and met the Part 70 permit requirement of 95% destruction. A sample of the catalyst is sent to the manufacturer annually for "top, middle, bottom" analysis. Temperature at the inlet and outlet of the CatOx is monitored and recorded daily, and usually fluctuates around 700 degrees Fahrenheit. The temperature monitor is calibrated quarterly or semi-annually. The pressure in the duct leading to the CatOx is usually around 2 inches of water column, but duct pressure readings are not recorded.

Two permanent total enclosures (PTE), one for each coating and oven line, were installed in 2005. EPA Method 204 has only been performed once on the PTEs when they were originally installed. Smoke tests are performed during destruction efficiency tests.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:
EPA observed the permanent total enclosures for the coating and oven lines. The PTEs have a small opening at the front to feed in sheets. Six blowers are used to draw emissions from each oven to the CatOx, as well as one blower in the main duct.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:
- Safety data sheets for the end seal compound and coatings
- Emission calculation spreadsheets for the previous 3 years, including the MPCA spreadsheets and coating/end seal usage numbers.
- Previous two stack test reports at the catalytic oxidizer
- Most recent Method 204 capture test report
- Catalytic oxidizer temperature readings from 7/13/2021 – 7/13/2022

DIGITAL SIGNATURES

Report Author: EMMA LEEDS Digitally signed by EMMA LEEDS Date: 2022.09.06 07:57:03 -05'00'

Section Supervisor: Frank, Nathan Digitally signed by Frank, Nathan Date: 2022.09.08 16:18:22 -05'00'

APPENDICES AND ATTACHMENTS

1. Attachment A: Confidential Business Information
2. Attachment B: Digital Image Log

Facility Name: Silgan Containers
Facility Location: 12130 Lynn Ave, Savage, MN
Date of Inspection: July 13, 2022

APPENDIX B: DIGITAL IMAGE LOG

1. **Inspector Name:** Dakota Prentice	2. **Archival Record Location:** EPA Region 5 Electronic Records Center

Image Number	File Name	Date and Time (incl. Time zone and DST)	Latitude and Longitude	Description of Image
1	IMG_0146	7/13/22, 8:26 AM		Coater #2 total enclosure
2	IMG_0146	7/13/22, 8:29 AM		Oven #2
4	IMG_0146	7/13/22, 8:31 AM		Catalytic oxidizer control panel

Note: times shown on photos are one hour early.